

ABSTRACT

Mixing apparatus

A container 1 has a movable internal plunger 2 with a single relatively large central opening 21. The container is lined by a flexible plastics bag 3 which is inserted through the opening 21 to contain a liquid to be mixed. The plunger is moved up and down below the surface of the liquid to cause an accelerating radially inward flow of liquid *A* below the plunger. When the liquid reaches a central collision region the converging liquid creates an unrestricted axial flow *B* through the central region of the opening 21. Embodiments are described in which the bag 3 can roll into a peripheral recess in the plunger, and the radial flow can also be created by moving the bottom of the container relative to a fixed internal apertured wall. Mixing is extremely effective and very energy-efficient compared with mixing processes which involve forcing liquid through a restricted orifice.